

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

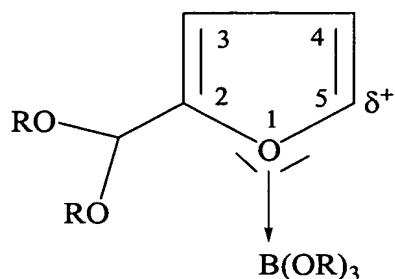
The present invention as set forth in **amended Claim 1** relates to a method of producing 5-formyl-2-furylboronic acid, comprising:

- a) reacting the formyl group of 2-furaldehyde with a protective group, to obtain a protected 2-furaldehyde;
- b) adding a base to a composition comprising a boric acid ester and said protected 2-furaldehyde, thereby obtaining a reaction mixture and reacting said protected 2-furaldehyde, said base and said boric acid ester;
- c) adding said reaction mixture to an acidic medium; and
- d) obtaining 5-formyl-2-furylboronic acid from said acidic medium.

In contrast, Guerry et al (WO 96/16046) fail to disclose or suggest obtaining a protected 2-furaldehyde and adding a base to a composition comprising a boric acid ester and said protected 2-furaldehyde. This has been acknowledged by the Examiner. See page 5 of the Office Action.

WO96/16046 is discussed in the specification at page 2, starting at line 3. In WO96/16046, boronic acid ester is added to a mixture of base and protected furaldehyde. The process of the WO96/16046 has a **low yield of 26%**. In contrast, the process of the present invention has **high yields of 75% and 90%** as shown in the Examples at pages 7 and 8 of the specification. This is an improvement by a **factor of at least 3**. The order of adding the starting materials is a reason for this difference.

It was not obvious based on WO96/16046 to change the order of adding the starting materials. In particular one has to bear in mind that $B(OR)_3$ (boronic acid ester) is a strong Lewis acid which on addition to the furane will likely form an acid base complex like:



This complex may comprise a higher electrophilicity than the furane itself.

Accordingly, it was a surprise that no addition of the anion of the base may occur in 5-position of the complex, but rather a deprotonation in 5-position predominantly happens, which in turn leads to the reaction with the boronic acid ester to form the desired product.

In addition, a person of ordinary skill in the art would not have expected that the reaction route of the present invention could be successful. This is because if more reactants are present in a mixture the more side-reactions can take place.

Therefore, the rejection of Claims 1-24 under 35 U.S.C. § 103(a) as being unpatentable over Guerry et al (WO 96/16046) is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The objection to specification is by the amendment of the specification.

Applicants also wish to thank the Examiner for indicating that the language at page 8, lines 4-6 is idiomatic. Thus, this paragraph complies with the requirements of MPEP 608.01.

The European application mentioned at page 8 of the specification is the priority application of this case. Applicants submit that the purpose of incorporating the priority application by reference is to provide a basis for correcting the U.S. application due to mistranslation errors or similar errors. Applicants may rely on the disclosure of a non-English language document only if it is explicitly incorporated by reference. However, Applicants may not rely on the foreign priority document of record for situations in which obvious errors have to be corrected. The MPEP states:

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Reply to the Office Action dated: May 2, 2005

"Where a non-English priority document under 35 U.S.C. 119 is of record in the application file, applicant may not rely on the disclosure of that document to support correction of an error in the pending application. This prohibition does not apply in a situation where the original application explicitly incorporates a non-English language document by reference."

MPEP §2163.07, II.

In addition, the MPEP states the practice of the USPTO regarding incorporation by reference in U.S. applications of foreign-filed priority applications as follows:

"As a safeguard against the omission of a portion of a prior application for which priority is claimed under 35 USC 119(a)-(d) or (f), or for which benefit is claimed under 35 USC 119(e) or 120, applicant may include a statement at the time of filing the later application incorporating by reference the prior application."

MPEP §608.01 (p), I.B.

Applicants respectfully request withdrawal of the request for correction of the specification.

The rejections of Claims 1-20 under 35 U.S.C. § 112, first and second paragraphs, are obviated by the amendment of these Claims.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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